MEMORANDUM FOR DISTRIBUTION

FROM: ELIZABETH E. SMEDLEY
ACTING CHIEF FINANCIAL OFFICER

SUBJECT: FY 97 DATA CALL FOR ENVIRONMENTAL LIABILITIES FOR ACTIVE FACILITIES

This memorandum transmits data collection guidance (see **Attachment A**) to assist in the development of an estimate of the Department's environmental liabilities for FY 97. As you know, this estimate is needed for reporting in the consolidated financial statements, which are required by the Government Management Reform Act of 1994 . Specifically, this guidance requests information on facility and non-facility-related environmental liabilities that have not been addressed in the Office of Environmental Management (EM) cost estimates. The Department used a data call similar to this one to augment the 1996 Baseline Environmental Management Report (BEMR) life-cycle cost estimate for reporting in the FY 1996 Statement of Financial Position. For FY 1997, the process of developing an overall liability estimate for the Department is more complex, but will utilize the same basic strategy of employing existing EM cost estimates to the greatest extent possible and augmenting them with estimates developed using this data call.

The major driver of environmental liability not addressed in EM estimates in FY 1996 was cleanup costs for contaminated active facilities. Consequently, we determined which sites would receive the FY 1997 data collection package by reviewing the 1996 BEMR and more recent site estimates under EM's *Accelerating Cleanup: Focus on 2006*[1] effort. Sites for which these two EM estimates did not provide full coverage of facility costs were identified as candidates to provide additional data.

The accompanying guidance begins with a summary of the results from FY 1996 and a brief overview of the proposed cost-estimation methodology, and then provides step-by-step instruction on providing the requested data regarding facility and non-facility-related environmental liabilities. The non-facility-related questions are straight-forward and require only review and update of FY 1996 responses (if sites did respond) or completion of a new survey for sites that did not respond last year. The facility related questions are to be answered in a spreadsheet-based, automated data collection tool. The guidance provides step-by-step instructions on how to review and fill out each section of the tool.

[1]This effort was previously called EM's Ten-Year Plan.

To facilitate this effort last year, field office contacts were established to ensure and coordinate the submission of data from field office sites. We intend to use this approach again this year and ask that you provide us the name of your field contact by July 18, 1997. Please note that we have identified the names of last year's field contacts on the distribution list. For your information, former Under Secretary Thomas Grumbly, at the direction of former Secretary O'Leary, initiated a Special Project on Excess Facilities whose objectives included identifying active DOE facilities likely to become excess in the next ten years and estimating the costs to clean up and disposition those facilities. The Special Project had field contacts from ten DOE Operations Offices. These contacts are familiar with FIMS and the cost estimating methodology being used to estimate environmental liabilities from active facilities. A list of these contacts is included as **Attachment B** to this memorandum.

To facilitate the FY 1997 data collection effort, we propose to collect and transfer all data electronically. Electronic data collection packages will be prepared for each site identified in the process described above. Data packages will be transferred between Headquarters and the Field using the Department's File Transfer Protocol (FTP) system. The FTP is a protocol used to transfer electronic files over the Internet, frame relay, or via telephone (i.e., modem). A set of directories has been established on the Department's FTP system specifically for this effort. Please review the "Using File Transfer Protocol" instruction sheet (see **Attachment C**) included with the guidance.

Data packages will be prepared for specific sites and will include the following files:

1) A Microsoft® Excel 5.0 file containing a summary of the sites FY 1996 responses to the non-facility-related environmental liability survey;

2) A WordPerfect® 5.x file containing a copy of the FY 1997 non-facility-related environmental liability survey; and

3) A Microsoft Excel 5.0 file containing an automated data collection tool for providing data on the size and type of active facilities

These files will be combined in an executable file named for each specific site (e.g., the lanl.exe would be for the Los Alamos National Laboratory). Once this file has been retrieved via the FTP system, simply double-click on its icon in the Windows® File Manager and the computer will ask where the individual files should be saved. Each file can then be opened using the appropriate software.

Sites should complete electronic data entry and provide updated electronic files to Headquarters via the FTP by Friday, August 29, 1997. If you or your field contact should have any questions regarding the overall conduct of this data collection effort, including the standard for audit verifiability, contact Robert Myers of my staff on (202) 586-8609. For questions on the completion of electronic data collection tools, contact Greg Szwartz of Project Performance Corporation

on (202) 646-1082. For questions regarding the use of the FTP system, contact DOE technical assistance in Oak Ridge on (423) 482-7927.

Attachments

ATTACHMENT A

GUIDANCE FOR DATA REQUEST TO ESTIMATE ENVIRONMENTAL LIABILITIES FROM ACTIVE DOE FACILITIES AS REQUIRED BY THE GOVERNMENT MANAGEMENT REFORM ACT

INTRODUCTION

The purpose of this guidance package is to request data for the Department to respond to certain requirements of the Government Management Reform Act of 1994 (GMRA). Specifically, Section 405 of the GMRA requires selected executive agencies, including the Department of Energy (DOE), to prepare, on an annual basis, audited financial statements reflecting the overall financial position of those agencies, including assets and liabilities. The data requested in this guidance is vital to the development of an environmental liability estimate for the Department, which is necessary for the financial statements to present fairly the financial position of the Department. The environmental liability estimate reported in the FY96 financial statements was based primarily on the 1996 *Baseline Environmental Management Report* (BEMR) estimate and an active facilities environmental liability estimate for that part of the Department's operations not included in BEMR. This guidance requests data related to the active facilities environmental liability estimate.

FY 1996 Experience: Findings and Methodology

The portion of DOE's FY96 environmental liability estimate attributable to active facilities was $20.6 billion. This estimate included the costs associated with stabilization, deactivation, and decommissioning active facilities not included in the 1996 *Baseline Environmental Management Report* (BEMR), from which the remainder of the Department's environmental liability estimate was drawn. The Department developed the active facilities environmental liability estimate using facility data from its corporate real property database, the Facilities Information Management System (FIMS) and facility-related cost estimating models and data from BEMR . The following bullets describe the methods in greater detail.

- To estimate **stabilization and deactivation** costs, each facility and structure not included in BEMR was matched to a BEMR model category based upon site-provided information. Using the size data from FIMS for buildings, and site input on square footage for selected structures, facility cost models (EM-60 BEMR) were used to estimate the stabilization and deactivation costs for all contaminated facilities.

- The **decommissioning** methodology used the same site inputs as the stabilization and deactivation methodology to extrapolate costs from a data set of 285 decom-

missioning projects in BEMR. In examining those decommissioning projects, it appeared that decommissioning costs were more directly related to facility type than to size. More specifically, it appeared that the best model for predicting decommissioning costs would be one where costs were forecasted as partially fixed and partially variable with respect to size. As a result, the Department estimated costs in this category using a ratio of fixed to variable decommissioning costs.

- **Waste management** associated with facility stabilization, deactivation, and decommissioning was estimated to be similar for facilities included in BEMR and active facilities not included in BEMR. Based upon this assumption, BEMR waste management cost ratios were used to estimate waste management liability as a multiplier on stabilization, deactivation, and decommissioning costs . A similar methodology was used to estimate related **support costs**.

As part of the environmental liability cost estimating exercise during FY96, the Department conducted a survey of sites not included in BEMR to identify potential soil and groundwater remediation and legacy waste management liability not accounted for in BEMR. The results of this survey indicated that such potential liabilities were not material to the Department's consolidated financial statements.

DOE's Office of the Inspector General conducted an audit of the consolidated statement in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States. The audit found that the DOE's consolidated statement presented fairly the financial position of the Department. The Office of the Inspector General noted, however, that the environmental remediation costs for active facilities was not sufficiently documented at the site level to permit detailed audit verification of input data.

Overview of the Approach

The context for the cost methodology used successfully last year to estimate the Department's environmental liability is unfortunately not applicable this year. Whereas a two-step approach of BEMR for legacy problems and an adaption of DOE facility cost models for active facilities was appropriate last year, a more sophisticated approach is required this year. This more sophisticated approach is necessary because the Department is moving toward an accelerated cleanup approach for managing the EM program focused on achieving major cleanup milestones by 2006.[2] EM is using this approach to estimate its life-cycle costs rather than updating BEMR as it attempts to focus shrinking resources more sharply.

[2]See *Accelerating Cleanup: Focus on 2006*, Discussion Draft, Office of Environmental Management, U.S. Department of Energy, Washington, DC, June, 1997.

As in the past, a successful approach for estimating the Department's environmental liabilities will meet three criteria: it will employ the best available information to formulate the estimate, be coordinated by Field and Headquarters DOE management, and be verifiable in an audit. For FY 1997, it appears that three mechanisms will be required to estimate DOE's environmental liabilities successfully for three segments of the Department's potential environmental liabilities: (1) environmental problems associated with EM facilities, (2) environmental problems associated with "pipeline" facilities, which were scheduled to be transferred to the EM program in the 1996-2000 time frame, and (3) environmental problems associated with active facilities. Costs for the majority of the liabilities in the first two categories are likely to be derived from the Project Baseline Summaries underlying *Accelerating Cleanup: Focus on 2006* and the 1996 BEMR.[3]

By contrast, data will be required to develop estimates for the active facilities not included in these two cost reports. In a similar effort to the FY 1996 active facilities environmental liability cost estimate, the Department plans to use facility-specific information from sites in existing DOE facility cost models to derive environmental liability cost estimates. The methodology produced acceptable results for FY96 and, with the implementation of recommendations suggested by the IG in last year's audit, should continue to produce acceptable results.

NON-FACILITY-RELATED ENVIRONMENTAL LIABILITY

Pursuant to GMRA requirements, DOE is required to report all of its reasonably estimable environmental liabilities. The focus of this section of the guidance is on all waste and/or areas of contamination that represent a potential environmental liability and are not accounted for in either *Accelerating Cleanup: Focus on 2006* or BEMR. As mentioned earlier, sites reported on non-facility-related environmental liability in two categories in a survey last year: **on-site contamination requiring remediation** and **management of stockpiled and/or legacy wastes**. The guidance for this portion of the data request seeks to update the results of last year's survey.

On-site contamination includes the assessment, clean-up, and management of contaminated environmental media, most commonly soil and groundwater. The second area of non-facility environmental liability includes the management of stockpiled and legacy wastes. This activity involves the characterization, storage, treatment, and disposal of wastes not managed by EM. Although DOE continues to generate a variety of wastes on a routine basis, the management of routine wastes is considered an ongoing cost of doing business rather than a fixed environmental liability. DOE continues to direct nearly all stockpiled/legacy wastes to the EM program, therefore, the waste quantity and cost in this category is expected to be small compared to what EM estimates as its waste management costs.

[3]EM informally closed the "pipeline" following publication of the 1996 BEMR. As a result, life-cycle cost estimates for pipeline facilities are generally included in BEMR but excluded from *Accelerating Cleanup: Focus on 2006*.

In many cases, remedial and waste management activities at DOE sites are conducted by EM's Environmental Restoration (EM-40) and Waste Management (EM-30) Programs. Since these activities are directed by the EM program, environmental liabilities resulting from them generally are reported in *Accelerating Cleanup: Focus on 2006*.

This section of the liability estimate has two components: a survey and a summary table of last year's responses. The survey contains a series of general questions regarding on-site contamination and management of legacy and/or stockpiled waste. The summary table is a Microsoft® Excel spreadsheet (for use on an IBM-compatible personal computer) which summarizes last year's responses to the survey. The summary spreadsheet is a reference document only. Please do not make any changes to it. Carefully review the summary table and complete the survey if your site falls into either of the following categories:

- There are areas/activities under the purview of the EM program but excluded from the Focus on 2006 effort.

- There are on-site environmental liabilities not currently under, or planned to be under (within 5 years), the purview of the Office of Environmental Management (EM); or

If your site falls into either of the above categories and the summary table contains no information on your site, please complete the survey. Similarly, if your site responded to last year's survey but the response has since changed, complete the survey again. The survey and the summary table are available electronically and can be downloaded via file transfer protocol (FTP) as described in Attachment C: Using File Transfer Protocol. Please complete the survey electronically **using existing information. There is no expectation for you to develop any cost estimates that do not already exist.** In addition, please do not report any costs for on-site contamination which are already reported in Office of Environment, Safety, and Health Management Plan Information System.[4] Please use WordPerfect 5.x or a more current version and return the survey to the appropriate Operations Office folder of the "HQINBOX" on the FTP site. Before returning the survey, please double check that the site identification information at the beginning of the form has been completed. Use a file naming convention that identifies the site whose information is being returned and the version of the data included (e.g., "lanl1.wpd" and "lanl1.xls" would contain the first version of non-facility and facility-related data for Los Alamos National Laboratory).

FACILITY-RELATED ENVIRONMENTAL LIABILITY

[4]Environmental liabilities contained in Environment, Safety, and Health Management Plans are reported separately in the Department's financial statements.

The expectation for the environmental liability portion of the FY97 financial statement not accounted for by the Office of Environmental Management's life-cycle cost estimate is that active facilities will dominate the estimate as was the case in FY96. As mentioned earlier, although the context of the Department's environmental liability estimate has changed due to the Focus on 2006 effort, the basic methodology for estimating active facility liabilities is similar to the FY96 methodology. Not surprisingly, then, the information required to develop the active facilities liability estimate is similar to the information requested last year. The major difference in information collection in FY97 is the creation of an active facilities data collection tool.

The data collection tool was developed as a Microsoft® Excel workbook for use on an IBM-compatible personal computer. The data collection tool is divided into four sections: Introduction; Facility Type; Square Footage Estimation; and Facility Check. Each of the sections represents a separate sheet within the data collection workbook. In order to accurately prepare the data as requested, each of the three sheets following the introduction should be filled out in order. Guidance for each of the data collection workbook sheets is presented below.

Introduction

This workbook sheet provides an overview of the data collection workbook including definitions of key components of the data collection workbook. With one exception, its purpose is for background only. The exception is for entering the name of the individual who completes the workbook. That individual should enter his/her name in cell M3 of the worksheet. The name will automatically be copied to the other worksheets in the workbook. If another person works on any of those worksheets, the new individual should enter his/her name in cell M3 of whichever worksheet he/she completes.

Sheet 1: Facility Type

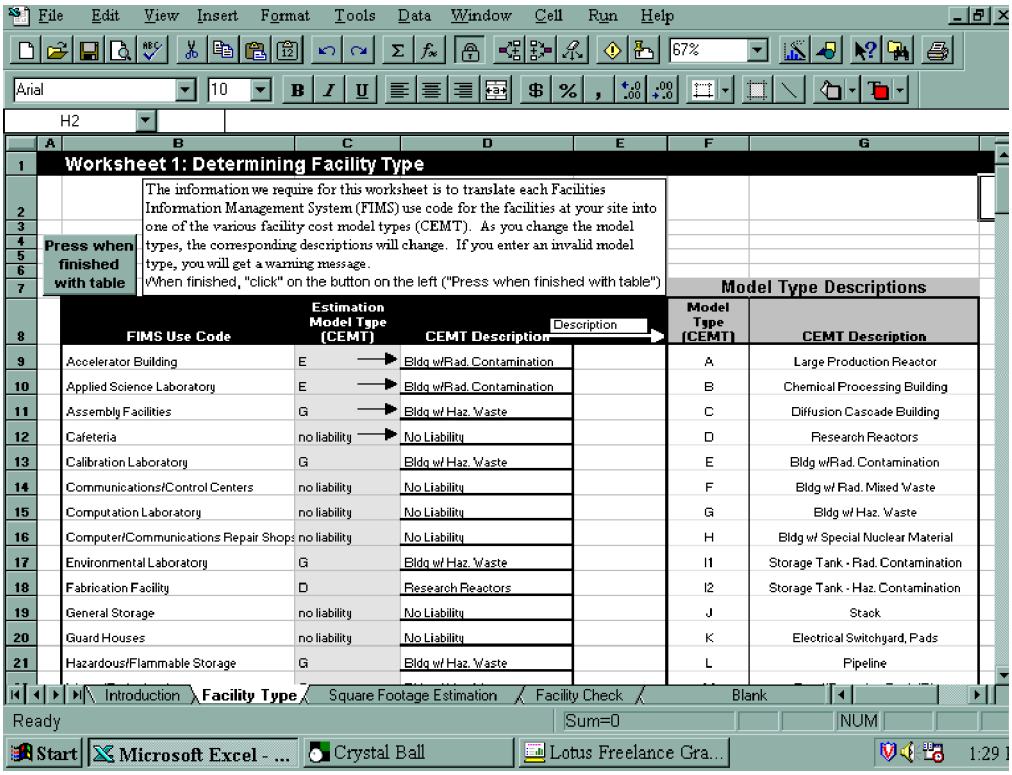
This section provides guidance for developing the inputs to the "Facility Type" sheet in the accompanying data collection workbook (as shown in Exhibit 1). The section will focus first on describing the process you should use in determining the appropriate cost model types for facilities at your site and will then provide step-by-step instructions on entering data into the "Facility Type" spreadsheet.

What are FIMS Use Codes? The Facility Information Management System (FIMS) is DOE's corporate real property data base. FIMS contains data on the approximately 25,000 buildings and other structures and facilities within the DOE complex. The database categorizes real property units into four categories, only two of which are important for this exercise: 1) buildings, and 2) other structures and facilities (OSF). Each building or OSF in FIMS is classified using one of approximately 280 use codes defined by the General Services Administration (GSA). In many cases, the use code provides a good indication of the potential for buildings or OSFs to be contaminated (e.g., cafeterias, fitness centers, and libraries are unlikely to be contaminated while reactors and hazardous waste storage facilities are likely to be contaminated). In the active

facilities cost estimating methodology, these use codes serve as the basis for allocating buildings and OSFs into model categories for the purpose of estimating costs. The following paragraphs describe how to translate use codes into the appropriate cost model categories.

Exhibit 1

Sample "Facility Type" Worksheet



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Worksheet 1: Determining Facility Type

The information we require for this worksheet is to translate each Facilities Information Management System (FIMS) use code for the facilities at your site into one of the various facility cost model types (CEMT). As you change the model types, the corresponding descriptions will change. If you enter an invalid model type, you will get a warning message.

Press when finished with table

When finished, "click" on the button on the left ("Press when finished with table")

FIMS Use Code	Estimation Model Type (CEMT)	CEMT Description
Accelerator Building	E	Bldg w/Rad. Contamination
Applied Science Laboratory	E	Bldg w/Rad. Contamination
Assembly Facilities	G	Bldg w/ Haz. Waste
Cafeteria	no liability	No Liability
Calibration Laboratory	G	Bldg w/ Haz. Waste
Communications/Control Centers	no liability	No Liability
Computation Laboratory	no liability	No Liability
Computer/Communications Repair Shops	no liability	No Liability
Environmental Laboratory	G	Bldg w/ Haz. Waste
Fabrication Facility	D	Research Reactors
General Storage	no liability	No Liability
Guard Houses	no liability	No Liability
Hazardous/Flammable Storage	G	Bldg w/ Haz. Waste

Description

Model Type Descriptions

Model Type (CEMT)	CEMT Description
A	Large Production Reactor
B	Chemical Processing Building
C	Diffusion Cascade Building
D	Research Reactors
E	Bldg w/Rad. Contamination
F	Bldg w/ Rad. Mixed Waste
G	Bldg w/ Haz. Waste
H	Bldg w/ Special Nuclear Material
I1	Storage Tank - Rad. Contamination
I2	Storage Tank - Haz. Contamination
J	Stack
K	Electrical Switchyard, Pads
L	Pipeline

Introduction | Facility Type | Square Footage Estimation | Facility Check | Blank

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Are All Facilities in FIMS Included? For the purpose of this cost-estimating exercise, several categories of facilities have been excluded from consideration because they are unlikely to be contaminated, unlikely to bear significant liabilities (in the case of trailers), or included elsewhere in the Department's environmental liability estimate (in the case of land). Exhibit 2 presents the entire range of GSA use codes, identifying which are to be included in this cost estimate.

Exhibit 2

FIMS Use Codes to be Used in Active Facilities Liability Estimate

FIMS Property Type	Included in Analysis	Excluded from Analysis
Buildings	All	
Other Structures and Facilities (OSFs)	Usage Codes 2000 Catchall 3000 Research and Development 4000 Storage 5000 Industrial/Production 6000 Service Structures 8000 Distribution Systems	Usage Codes 1100 Transportation Systems 1200 Transportation Systems 1700 Transportation Systems 4100 Water Storage Systems 5100 Potable Water Collection 7000 Communication Type Systems 8100 Water Distribution Systems
Trailers/Modular		All
Land		All

In addition, this survey asks you to translate only the FIMS use codes that apply to your site (i.e., you will not have to allocate all 280 use codes into cost model categories if only 50 use codes apply to buildings or OSFs at your site). Consequently, the accompanying data collection workbook contains data on only the buildings and OSFs with FIMS use codes that are included in this analysis and that apply to your site.

What Are the Cost Model Categories? There are 15 cost model categories that predict stabilization, deactivation, and surveillance and maintenance costs for various types of buildings and OSFs. Exhibit 3 lists these categories and provides a brief description of the facilities appropriate for each category. Each model category contains different costing factors for different types of buildings and OSFs based on past experience in stabilization and deactivation projects.

Exhibit 4 presents a logic flow chart to facilitate the process of allocating buildings and OSFs at your site into the appropriate model category. The first step on the flow chart is to assess whether buildings or OSFs in a specific GSA use code are likely to be contaminated. If they are not likely to be contaminated, the categorization is straightforward: "No liability." If

they are likely to be contaminated follow the flow chart in Exhibit 4 and use the information about model types in Exhibit 3 to select the most appropriate category.

Exhibit 3

Summary Description of Cost Model Types

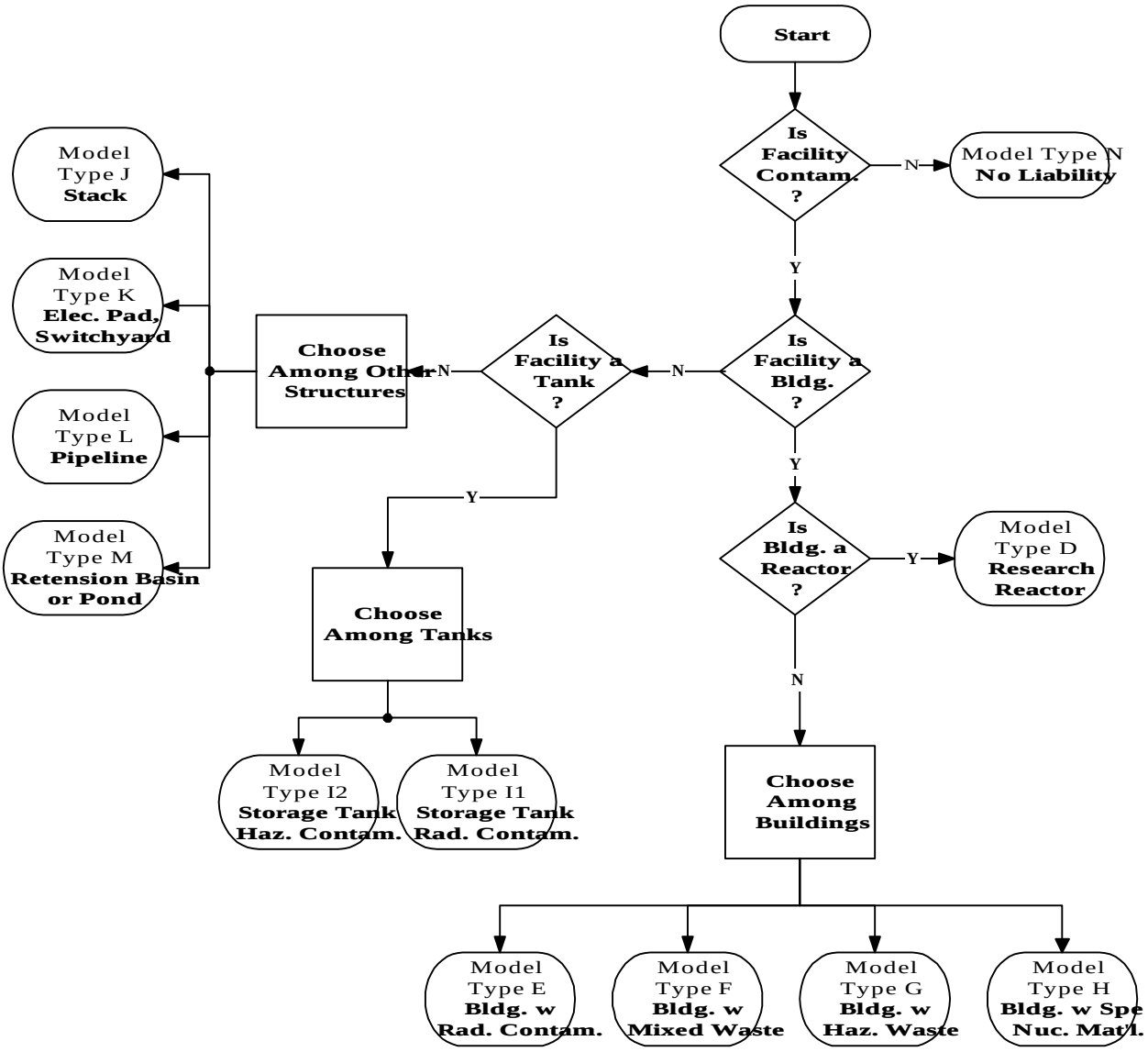
Model	Name	Description
A	Production Reactors	A reactor whose primary purpose is to produce fissile or other materials or to perform irradiations on an industrial scale. Unless otherwise specified, production reactors generally refer to either a tritium- or a plutonium- production facility used to produce materials for nuclear weapons. There are 14 such reactors within the United States: nine at the Hanford site and five at the Savannah River Site. Note: All facilities in this category should already be addressed by Office of Environmental Management (EM) life-cycle cost estimates.
B	Chemical Processing Buildings	Sometimes referred to as *canyons*, these buildings were used to separate special nuclear materials from spent reactor fuels and irradiated targets. Typically these building were used for chemical separation operations, or reprocessing, in which uranium and plutonium were extracted from dissolved irradiated targets and spent nuclear fuel. This process resulted in a significant amount of high level waste. Note: All facilities in this category should already be addressed by EM life-cycle cost estimates.
C	Diffusion Cascade Buildings	The primary purpose of diffusion cascade buildings is to enrich uranium. The process is designed to force compressed uranium fluoride gas through a series of membranes designed to trap Uranium-235 molecules. Each stage of a cascade consists of compressors, heat exchangers, and a diffuser that houses membranes. There are only three diffusion cascade buildings in the United States: Portsmouth Gaseous Diffusion Plant, Paducah Gaseous Diffusion Plant, and K-25 at Oak Ridge, all of which should be already addressed by EM life-cycle cost estimates.

Model	Name	Description
D	Research Reactors	A reactor whose nuclear radiations are used primarily as a tool for basic or applied research into nuclear physics, reactor materials and design, and nuclear medicine. Typically, it has a thermal power of 10 MW(t) or less. Some of these reactors may be used to produce isotopes for industrial or medical use.
E	Buildings with Radiological Contamination	These buildings have contamination in the form of low level waste which is any waste that is not classified as any other radioactive waste such as high level, spent nuclear fuel, or transuranic waste. No hazardous contamination is present.
F	Buildings with Mixed Waste	These buildings contain waste with both hazardous and radioactive components. Hazardous waste is nonradioactive waste that has at least one of the following characteristics: (1) is listed as a hazardous waste in Subpart D of 40 CFR Part 261, (2) exhibits any of the characteristics identified in Subpart C of 40 CFR Part 261, or (3) contains PCB-containing wastes subject to regulation under the Toxic Substances Control Act and 40 CFR Parts 702-799.
G	Buildings with Hazardous Wastes	These buildings contain hazardous waste as described above but no radioactive waste.
H	Buildings with Special Nuclear Materials	Special nuclear material is plutonium or uranium enriched to a higher-than-natural concentration. These materials will generally be found in association with chemical processing buildings or other such buildings handling highly concentrated uranium and plutonium . Hazardous waste may also be found in buildings in this model type.
I1	Storage Tanks with Radiological Contamination	A storage tank designed to hold liquid or semi-liquid material or waste that has radiological contamination. Storage tanks with mixed (radiological and hazardous) waste should be included in this model type.
I2	Storage Tanks with Hazardous Contamination	A storage tank designed to hold liquid or semi-liquid hazardous substances (e.g., sulfuric acid or petroleum hydrocarbons) or hazardous wastes as described above.

Model	Name	Description
J	Stack	Any vertical structure designed to divert air emissions away from the source. The GSA codes in FIMS do not discretely identify stacks; therefore, this category may not be applicable.
K	Electrical Pads and Switchyards	This category includes substations, power transformers, distribution transformers and other fixed structures for setting, changing, or directing voltage in electricity distribution (particularly those which may contain PCB oil as a fire retardant). This category does not include electrical cables or poles.
L	Pipelines	Gravity or pressure driven piping networks used to convey contaminated liquid substances (e.g., sewage, petroleum, and hazardous or radioactive liquids). This category does not include piping for potable water or other non-contaminated substances.
M	Retention Ponds/ Basins	Pond or basin-like structures for containing and treating or evaporating contaminated liquids or sludges (e.g., Solar Ponds at Rocky Flats, cribs at Hanford)
N	No Liability	Buildings or OSFs are uncontaminated and therefore do not generate any environmental liability

Exhibit 4

Process Flowchart for Determining Facility Cost Model Type



NOTE **Excludes BEMR model types A,B, and C, which should only exist at EM facilities already addressed by EM life-cycle cost estimates.**

What About Decommissioning Costs? Allocating FIMS use codes to cost model types enables the generation of cost estimates for stabilization, deactivation, and surveillance and maintenance (S&M) activities. To estimate costs for decommissioning activities, the active facilities methodology for FY97 will use a spreadsheet-based adaptation of the Automated Remedial Assessment Methodology (ARAM), developed to support the Environmental Restoration and Waste Management Programmatic Environmental Impact Statement. ARAM identifies three major determinants of decommissioning costs for a facility: facility type, facility size (as measured by its "footprint"), and facility end state. Active facilities included in this estimate will be assigned to ARAM facility types based on a cross-walk developed to link the stabilization and deactivation facility cost model types to those used in ARAM.

Decommissioning cost estimates vary directly (although not linearly) with the footprint area of facilities, and with the storage capacity of liquid containment structures. For the purposes of this analysis, two default methods will be used for determining building or OSF footprint:

- Buildings: Footprint will be determined by dividing the gross square footage (as reported in FIMS) by the number of floors (as reported in FIMS). Although this method will produce inaccuracies for multi-story buildings which do not have complete floors, there will be a mechanism to correct errors for the most significant buildings from a cost perspective. This mechanism is described in "Sheet 3: Facility Check."

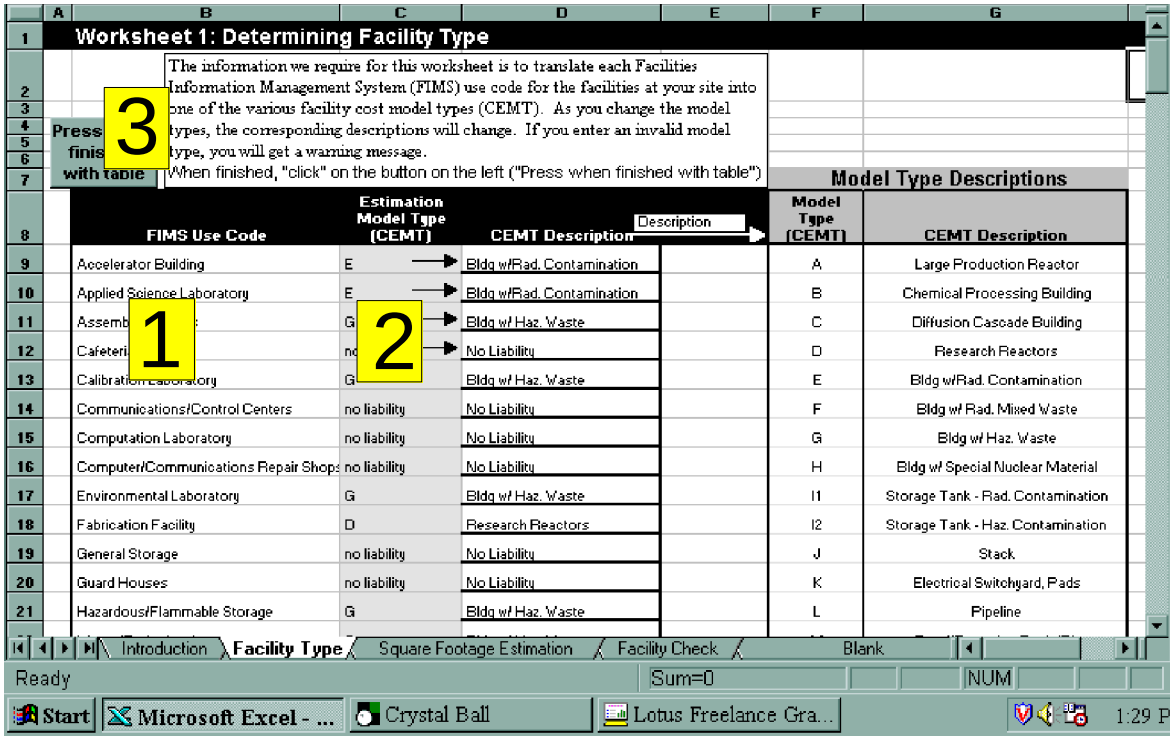
- OSFs: For OSFs described with gross square footage in FIMS, the default method will be the same as for buildings; for OSFs described using units other than square footage we will require some additional input from you. For details of that request, please see "Sheet 2: Square Footage Estimation."

The final major determinant of the ARAM decommissioning cost is the assumed end state of a facility after cleanup is completed. The end state influences project cost in that it determines such parameters as the fraction of waste volumes to be transferred off-site, fraction of building components to be removed, surface areas to be cleaned at the close of decommissioning, and the level of S&M required after decommissioning is complete. ARAM can generate decommissioning cost estimates for five different end states: (1) Greenfield/Demolition, (2) Greenfield/Reuse, (3) Building Entombment, (4) Light Decontamination, and (5) Material Capped. For the FY97 estimate, the CFO methodology will use the the end state that best represents current Department policy on decommissioning.

How Do I Complete the "Facility Type" Sheet? Completion of the Facility Type sheet requires three steps. Exhibit 5 highlights the three major steps involved in complete this section.

Exhibit 5

Completing the Facility Type Sheet



Note that on this sheet and the following two, all areas where information is requested are shaded.

- **Step 1**: Review the FIMS Use Code information provided in the far left column.

- **Step 2**: Complete the Cost Estimate Model Type for each FIMS Use Code. Refer to the CEMT Description column and Model Type Descriptions table provided on the sheet. Please select one of the designated letters (A-M) or "No Liability" corresponding to 15 model types. If you fail to do this, you will find a "#NA" designation (i.e., an error) on the screen. Please correct it by designating a recognized model type.

- **Step 3**: When you have completed the model type assignment of all FIMS use codes, click on "Press when finished" button in the upper left corner of the sheet. The "Square Footage Estimation" sheet will appear when data processing is complete. (Please note that processing the data may take several minutes.)

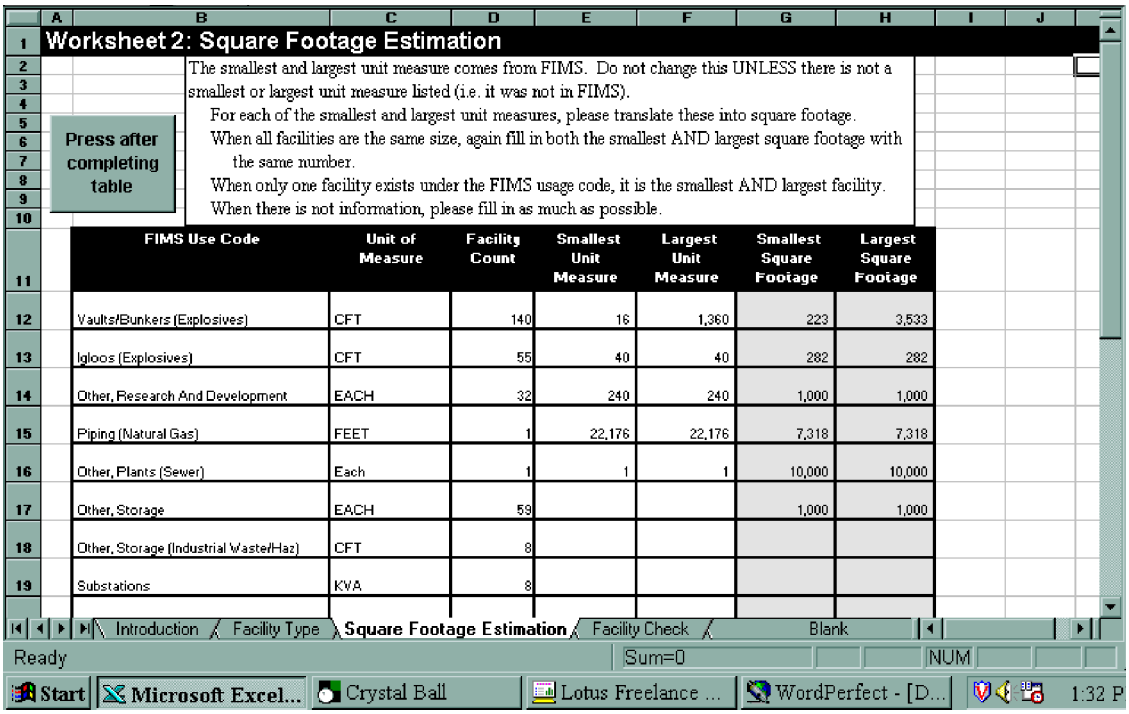
Sheet 2: Square Footage Estimation

This section provides guidance for developing the inputs to the "Square Footage Estimation" sheet in the accompanying data collection workbook (as shown in Exhibit 6). The section will focus first on describing the process you should use in determining the square footage for structures at your site and will then provide step-by-step instructions on entering data into the "Square Footage Estimation" spreadsheet.

Why must Structure Size be Reported as Square Footage? As discussed above, the facility cost estimation models for stabilization/deactivation and decommissioning rely on the square footage for each FIMS use code. While FIMS lists building sizes by square footage, the size of structures is presented in a variety of measures. For example, storage tanks are sized in gallons; transformers are sized in kilovolts; oil heating plants are sized in Btu/hr. As a result, the size of these structures must be converted to square feet in order to run the cost estimation models.

Exhibit 6

Sample Square Footage Estimation Sheet



Worksheet 2: Square Footage Estimation

The smallest and largest unit measure comes from FIMS. Do not change this UNLESS there is not a smallest or largest unit measure listed (i.e. it was not in FIMS).
For each of the smallest and largest unit measures, please translate these into square footage.
When all facilities are the same size, again fill in both the smallest AND largest square footage with the same number.
When only one facility exists under the FIMS usage code, it is the smallest AND largest facility.
When there is not information, please fill in as much as possible.

Press after completing table

FIMS Use Code	Unit of Measure	Facility Count	Smallest Unit Measure	Largest Unit Measure	Smallest Square Footage	Largest Square Footage
Vaults/Bunkers (Explosives)	CFT	140	16	1,360	223	3,533
Igloos (Explosives)	CFT	55	40	40	282	282
Other, Research And Development	EACH	32	240	240	1,000	1,000
Piping (Natural Gas)	FEET	1	22,176	22,176	7,318	7,318
Other, Plants (Sewer)	Each	1	1	1	10,000	10,000
Other, Storage	EACH	59			1,000	1,000
Other, Storage (Industrial Waste/Haz)	CFT	8				
Substations	KVA	8				

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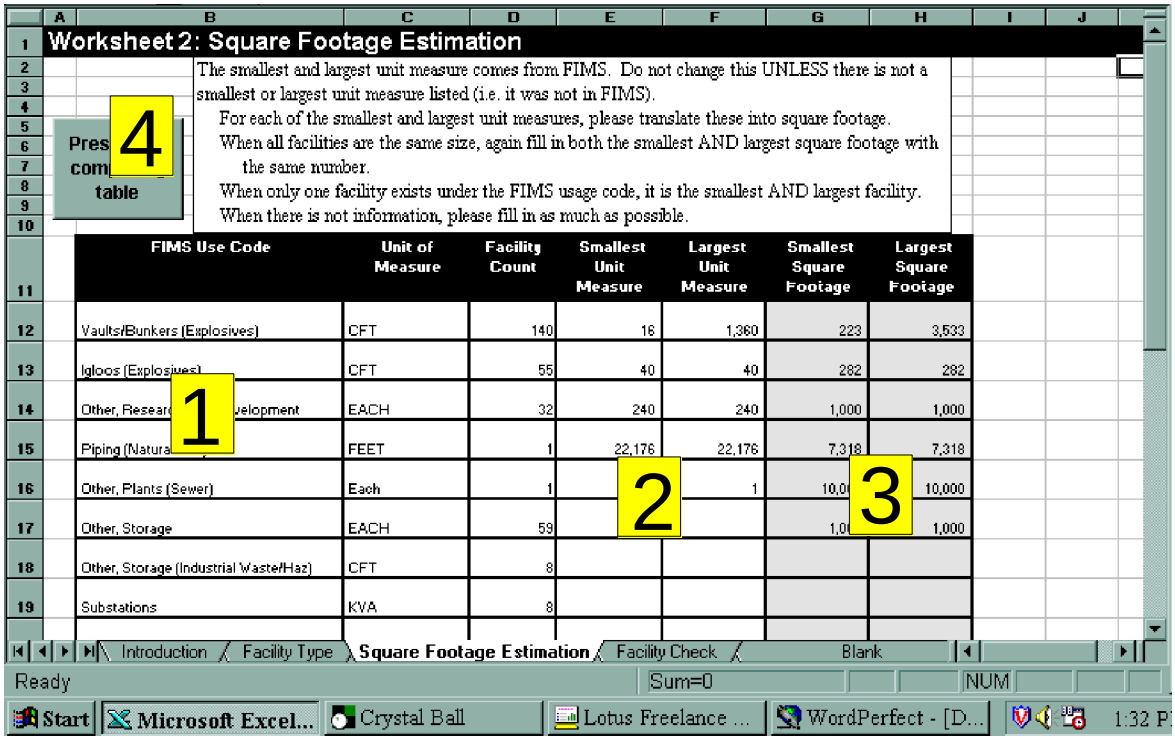
How Can FIMS Structures Be Converted to Square Footage? In the absence of a more accurate conversion method, the cost estimating methodology assumes that there is a linear relationship between square footage and the structure unit for each FIMS use code (e.g., gallons). Because of this assumed relationship, the square footage of all structures in each FIMS use code can be estimated based upon the square footage of the smallest and largest structure with each use code. Using the square footage of the smallest and largest structure within each FIMS use code will provide ample information to develop the equation for a straight line ($y = mx + b$) necessary to calculate the square footage of the remaining structures within each FIMS use code.

How Do I Complete the "Square Footage Estimation" Sheet? Completion of the Square Footage Estimation sheet requires four steps. Exhibit 7 highlights the three major steps involved to complete this section.

- **Step 1**: Review the FIMS Use Code information provided in the far left column.
- **Step 2**: For each FIMS Use Code, provide the smallest and largest unit measure if it does not exist, or if it exists and is incorrect.

Exhibit 7

Completing the Square Footage Estimation Sheet



- **Step 3**: For each FIMS Use Code, provide the smallest and largest square footage. With both the smallest and largest unit measure and corresponding square footage, we now have all of the information necessary to generate a relationship for each FIMS Use Code measured in units other than square footage.

- **Step 4**: When you have completed the square footage for the smallest and largest structure in each FIMS use code category, click on "Press to complete table" button in the upper left corner of the sheet. The "Facility Check" sheet will appear when data processing is complete. (Please note that processing the data may take several minutes.)

Sheet 3: Facility Check

This section provides guidance for utilizing the "Facility Check" sheet in the accompanying data collection workbook (as shown in Exhibit 8) to verify both the "Facility Type" and "Square Footage Estimation" sheets.

Opportunities for Verification of Data Inputs. Upon completion of the "Facility Type" and "Square Footage Estimation" sheets of the data collection workbook, the "Facility Check" sheet allows you to verify the results prior to final data submission. By providing data on those facilities and/or structures that represent the most significant portion of costs for your site, you can check the "Facility Check" sheet for accuracy.

How to Verify Data Using the Facility Check Sheet. In order to verify data in the "Facility Check" sheet, the following questions should be asked for each facility listed:

- Is the appropriate Cost Estimating Model Type (CEMT) being used? (Please refer to the Model Type Description table found in the "Facility Type" sheet for clarification.)

- Is the square footage accurately represented?

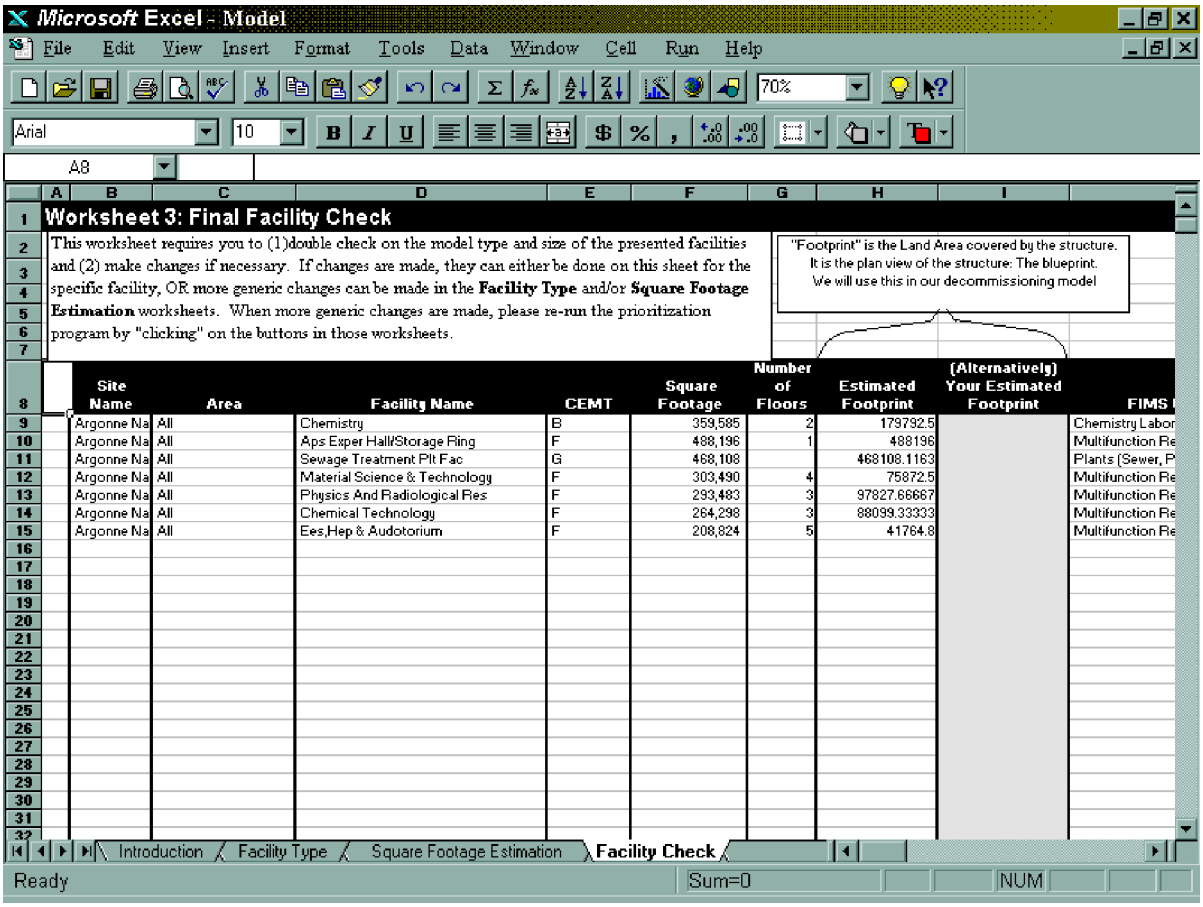
- Are the number of floors correct?

- Is the estimated footprint accurately represented?

If necessary, data can be changed directly on the "Facility Check" sheets or on both the "Facility Type" or "Square Footage Estimation" sheets.

Exhibit 8

Sample Facility Check Sheet



AUDIT VERIFIABILITY

The Department's Office of the Chief Financial Officer, with contractor support, will compile the results of your responses to the data request for both Non-facility-related Environmental Liability and Facility-related Environmental Liability and develop cost estimates for these portions of the Department's environmental liability. Although you will not be asked to document or support any of the cost estimates derived from your inputs, you may be asked to document and verify the information this data request guidance asks you to supply. It is beyond the scope of this guidance document to prescribe methods for documenting and verifying the inputs you supply. Decisions on site documentation are undoubtedly best made at the site level. Rather this guidance discusses a verifiability performance standard and suggests ways such a standard might be achieved.

The general performance standard for the Inspector General audit is reasonableness. If there is a reason that you made certain decisions or selected certain values and you can demonstrate those to the IG, they will in all likelihood be satisfied. By contrast, if you have arbitrary and/or inconsistent decisions or designations that cannot be justified in any way, they will probably not be satisfied. In order to prepare for an Inspector General audit at your site, it is desirable to record information on key decision points and data sources throughout your data collection and submission process. As such, the following suggestions may be useful for documenting the "Facility Type" and "Square Footage Estimation" portions of this data submission. Documentation methods such as these will be helpful in addressing future data verification inquiries.

- **Facility Type.** Exhibit 4 illustrates the key decision points for determining facility cost model type. It is possible to use Exhibit 4 as a documentation mechanism by making a photocopy for each FIMS facility use code at your site and marking the key decisions made in determining that facility's cost model type.

- **Square Footage Estimation.** It is possible to use the Square Footage Estimation sheet of the data collection workbook to document the source of the largest and smallest facility size estimation in the cells following each FIMS use code. Documentation terms could include your site's facility database (if there is one), historical facility blueprint, visual inspection and estimation, or other method.

ATTACHMENT B

EXCESS FACILITIES SPECIAL PROJECT FIELD CONTACT LIST

Operations Office	Name	Phone	Fax
Albuquerque	John Themelis (Lead)	(505) 845-6682	(505) 845-5439
Albuquerque	Anna Marie Trujillo	(505) 845-6387	(505) 845-5439
Chicago	Heidi Ramirez (Lead)	(630) 252-2114	(630) 252-2835
Idaho	Dan Shirley (Lead)	(208) 526-9905	(208) 526-1184
Nevada	Wayne Adams (Lead)	(702) 295-1530	(702) 295-0689
Oak Ridge	Robert Brown (Lead)	(423) 576-2599	(423) 241-4439
Oak Ridge	Randy Riggs	(423) 576-1002	(423) 576-9189
Oakland	Tom Geraldizo (Lead)	(510) 637-1705	(510) 637-2005
Ohio	Irma Brown (Lead)	(937) 865-3030	(937) 865-3843
Richland	Bill Edwards (Lead)	(509) 372-1291	(509) 376-2964
Richland	Shannon Herres	(509) 373-0908	(509) 376-2964
Rocky Flats	Lenora Lewis (Lead)	(303) 966-7512	(303) 966-2994
Rocky Flats	Steve Schiesswohl	(303) 966-6501	(303) 966-3321
Savannah River	John Pescosolido (Lead)	(803) 725-5590	(803) 725-7565
Savannah River	Ron Jernigan	(803) 725-2685	(803) 725-0375

ATTACHMENT C

Using File Transfer Protocol

HOW DO I CONNECT?

You can connect to the Headquarters FTP server in two ways:

- Via your Local Area Network (LAN) using Transmission Control Protocol/Internet Protocol (TCP/IP) communications software to access the Department of Energy Business Network (DOEBN), or
- Via modem using TCP/IP (Internet) communications software to connect to the DOE Internet at 1-800-290-5498.

Once connected, select the FTP application within your TCP/IP communications software. FTP, which stands for File Transfer Protocol, is a protocol used to transfer files over the Internet, frame relay or via telephone. There are different FTP software products on the market, so the features and usability of each will vary. The following instructions assume that users possess a basic knowledge of Windows 3.1, and Windows application standards. If additional assistance is required, please call DOE technical assistance at (423) 482-7927.

WHAT ARE MY USER ID AND PASSWORD?

A standard User ID and Password have been issued for all personnel participating in this effort:

Username: cfo
Password: Liability (the system is case sensitive so the "L" must be capitalized)

Your username and password are required to access the directories on the FTP server that have been designated for this project.

HOW DO I RETRIEVE DATA?

To access the directories for the CFO data collection effort on the FTP server, activate your FTP software application and enter the following information:

Host Name: ftp.em.doe.gov (the IP address is 205.254.131.101; you should not have to use it)
Username: cfo

Password: Liability (the system is case sensitive so the "L" must be capitalized)

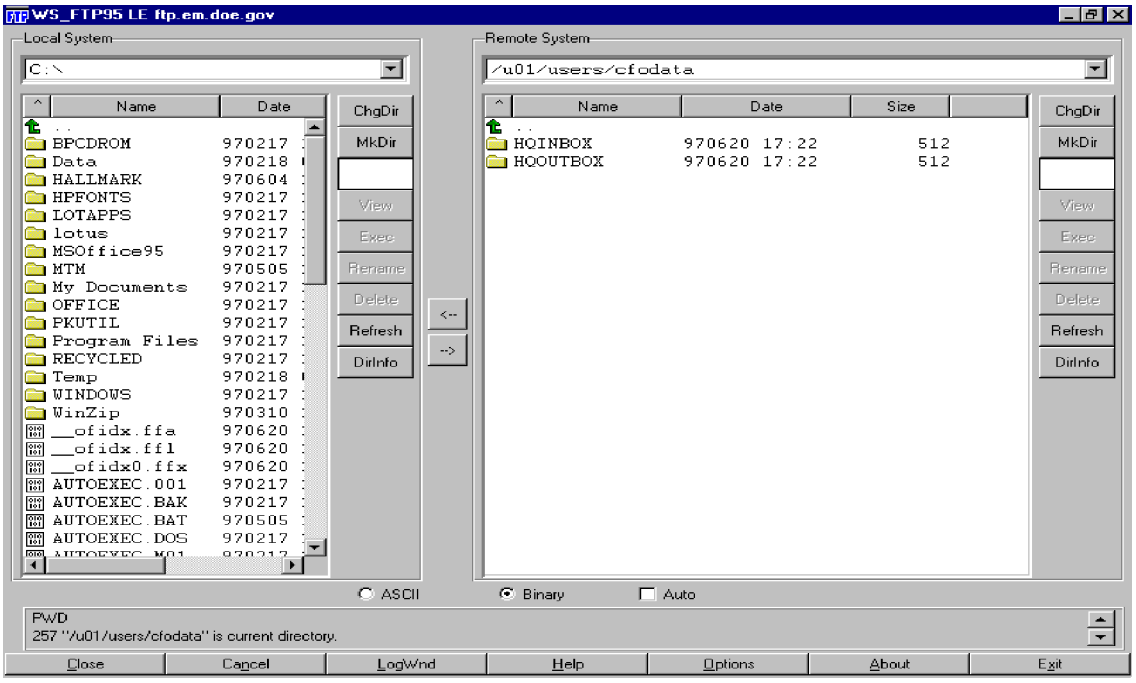
Click on the "Connect" button and a screen will pop up that allows you access to directories on the FTP (in the remote server window) and on your local area network (LAN) or pc (in the local server window) as shown in Exhibit 1 below.

WHAT DIRECTORIES SHOULD I LOOK FOR TO DOWNLOAD SITE DATA?

When you have successfully connected to the FTP server, you will log into a directory (as you would see in a Windows File Manager) called "**cfodata**." This directory will have two major subdirectories called **HQOUTBOX** and **HQINBOX**. As the names suggest, if you want to retrieve data collection packages that Headquarters has prepared, click on **HQOUTBOX**; and when you wish to return completed data entry packages to Headquarters, click on **HQINBOX**. Both of these major subdirectories will have a series of minor subdirectories named for each Operations Office participating in the data collection effort, and a general subdirectory called "guidance." Copies of the transmittal memo, data guidance, non-facility-related liability survey and 1996 non-facility-related liability summary will be available in the "guidance" directory. The site-specific, active facility data collection files will be available in the appropriate Operations Office directory. Click on these directories to gain access to data collection files.

EXHIBIT 1

EXAMPLE OF FTP DIRECTORY STRUCTURE



To download a copy of the electronic data collection package, double-click on the HQOUTBOX directory and double-click again on the appropriate subdirectory see a list of the data collection files.

1) Identify the local drive on your pc or LAN to which you would like to download the package(s). This can be done in the "local server" window by double-clicking on the directory and/or subdirectory of your choice.

2) Highlight the data collection package you wish to download by clicking on it once in the "remote server" window. Make sure that the data transfer setting is "binary" (not "ASCII" or "Auto")

3) Click once on the arrow pointing from the "remote server" window to the "local server" window. This will begin the downloading process. You should see a small window which will track the progress of the download and show you when it has been completed. When the download is complete, the file will appear on the local directory you selected. **Please note that the site-specific, active facility spreadsheet files will be "zipped" when you download them. To "unzip" them for use, simply double-click on the file icon in Windows® File Manager and the computer will ask you where you would like to save the unzipped file.**

WHAT IS THE PROCEDURE FOR SUBMITTING DATA AFTER DATA COLLECTION IS COMPLETE?

Please be sure that all files are named in such a way that your site can be identified. Use a file naming convention that identifies the site whose information is being returned and what version of the data is included (e.g., "lanl1.wpd" and "lanl1.xls" would contain the first submission of non-facility and facility-related data from Los Alamos National Laboratory). Each site should complete and submit the following electronic files:

- Completed Microsoft® Excel workbook with facility-related data;
- Newly completed Wordperfect® file with non-facility-related contamination survey (if applicable); and
- A readme.txt file with the following information
  - — Name and number of a point of contact who can answer questions regarding data
  - — Any qualifications or narrative explanation of facility or non-facility-related data

If sites are submitting multiple files, it may be useful to "zip" them together as a package. This will reduce the size of the files and the time required to transfer via the FTP. Please consult your local technical support personnel on using the zip software available at your site.

HOW DO I USE FTP TO UPLOAD COMPLETED DATA PACKAGES?

In order to upload your data submittal, you must log in to the FTP site using the username and password provided for the project as described above under "How Do I Retrieve Data?" Select the HQINBOX major directory and the appropriate Operations Office subdirectory in the "remote server" window by double-clicking on each.

1) First delete any old data files in the remote directory (this will only apply if you submit multiple versions of any of the data collection file).

2) Highlight the completed data collection files you wish to upload by clicking on it once in the "remote server" window. Make sure that the data transfer setting is "binary" (not "ASCII" or "Auto").

3) Click once on the arrow pointing from the "local server" window to the "remote server" window. This will begin the uploading process. You should see a small window which will track the progress of the download and show you when it has been completed. When the upload is complete, the file will appear on the local directory you selected.